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File 351:DERWENT WPI 1963-2000/UD=, UM=, & UP=200034

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Set	Items	Description
S1	340	LEGIONELLA OR PNEUMOPHILA
S2	2058	EIA OR ELISA OR (ENZYME(5N) (IMMUNE OR IMMUNO) (5N) ASSAY? -
	?)	
S3	144081	CHROMATOGRAPH? OR COLUMN? ?
S4	246	POLYSACCHARIDE? ? (5N) ANTIGEN? ?
S5	3	S4 AND S1
S6	13207	POLYSACCHARIDE? ?
S7	7	S1 AND S6
S8	0	S7 AND S2
S9	10	S1 AND S2
S10	0	S9 AND S3
S11	43	AU=MOORE N? OR AU=MOORE, N?
S12	1	AU=WHIPKEY M? OR AU=WHIPKEY, M?
S13	107	AU=WELCH J? OR AU=WELCH, J?
S14	0	S1 AND (S11-S13)
S15	17	S5 OR S7 OR S9

?t 15/7/all

15/7/1

DIALOG(R)File 351:DERWENT WPI

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013178551

WPI Acc No: 2000-350424/200030

Concentrating selected microorganisms from samples, useful for testing  
e.g. foods for contamination, by treating with matrix that carries  
specific affinity receptor for capture

Patent Assignee: CBD TECHNOLOGIES LTD (CBDT-N); FRIEDMAN M M (FRIE-I);

YISSUM RES & DEV CO (YISS )

Inventor: SAUNDERS A; SHOSEYOV O; SIEGEL D L

Number of Countries: 086 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200023792	A1	20000427	WO 99US17589	A	19990804	200030 B

Priority Applications (No Type Date): US 99301451 A 19990429; US 98175040 A  
19981019

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200023792	A1	E	118	G01N-021/77	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

Abstract (Basic): WO 200023792 A1

NOVELTY - One or more particular microorganisms (A) in a sample are  
concentrated by treating the sample with a cellulosic or chitin matrix  
which carries a cellulose-binding protein (CBP)-receptor or

cellulose-binding domain (CBD)-receptor conjugate (I), specific for (A).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a similar method using any matrix having bound to it an affinity receptor (AR) able to capture (A) when present in the sample at 0.00025-103 cfu (colony-forming units)/ml, thus obviating the need for a prolonged pre-enrichment step; and

(b) filtration device comprising, in a housing, (i) cotton, polyester and polypropylene filters or (ii) polyurethane, non-woven and polypropylene filters.

USE - The method is used to screen foods or medical, veterinary and environmental samples for microbial contamination.

ADVANTAGE - The method provides enrichment of (A) without the need for a long (or any) pre-enrichment step, and can be applied to large or small samples containing very few microorganisms (down to 0.00025 colony-forming units/ml). It reduces the time required to detect (A); improves sensitivity, and improves the chance of detecting rare microbes. The CBD and CBP receptors can be attached to native (not chemically modified) cellulose, so provide an inert, inexpensive and non-toxic matrix that retains its physical properties and has low non-specific binding for most proteins (and non-target microbes).

pp; 118 DwgNo 0/27

Derwent Class: A89; B04; C07; D16; J04; S03

International Patent Class (Main): G01N-021/77

International Patent Class (Additional): C12M-001/00; C12N-001/10;

C12N-001/12; C12N-001/14; C12N-001/16; C12N-001/18; C12N-001/20;

C12Q-001/04; C12Q-001/24; C12Q-001/68; G01N-033/44; G01N-033/53;

G01N-033/531; G01N-033/537; G01N-033/543; G01N-033/545; G01N-033/549;

G01N-033/554; G01N-033/566; G01N-033/567; G01N-033/569

15/7/2

DIALOG(R) File 351:DERWENT WPI

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013121117

WPI Acc No: 2000-292988/200025

New composition comprising isolated Invaplex of gram-negative bacteria comprising at least one invasin protein associated with LPS of the gram-negative bacteria

Patent Assignee: REED ARMY INST RES WALTER (REED-N)

Inventor: OAKS E V; TURBYFILL K R

Number of Countries: 082 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200018354	A2	20000406	WO 99US22771	A	19990929	200025 B

Priority Applications (No Type Date): US 99136190 A 19990527; US 98102397 A 19980930; US 98102398 A 19980930

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200018354	A2	E	72	A61K-000/00	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

Abstract (Basic): WO 200018354 A2

NOVELTY - A composition is new and comprises an isolated Invaplex of gram-negative bacteria comprising at least one invasin protein associated with lipopolysaccharide (LPS) of the gram-negative bacteria.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) preparing isolated Invaplex from Shigella comprising:
  - (a) water extracting Shigella;
  - (b) separating and discarding membrane fragments from the water extracted from Shigella resulting in a solution containing the Invaplex; and
  - (c) isolating the Invaplex from the solution;
- (2) preparing isolated Invaplex from Escherichia comprising:
  - (i) water extracting Escherichia;
  - (ii) separating and discarding membrane fragments from the water extracted Escherichia resulting in a solution containing Invaplex; and
  - (iii) isolating the Invaplex from the solution;
- (3) screening agents or drugs which reduce or eliminate Invaplex virulence comprising detecting a dissociation of the Invaplex in the presence of the agent or drug;
- (4) detecting gram-negative bacterial infection in a biological sample comprising:
  - (a) contacting a sample with a solid surface which is attached to an Invaplex from bacteria suspected of causing the bacterial infection; and
  - (b) detecting the presence or absence of a complex formed between the Invaplex and antibodies specific therefore in the sample where the presence of a complex formed indicates the presence of the bacterial infection;
- (5) detecting gram-negative bacteria infection in a sample comprising:
  - (a) contacting a sample with a solid surface to which is attached an Invaplex from bacteria suspected of being present in the sample; and
  - (b) detecting the presence or absence of a complex formed between the Invaplex and the bacteria in the sample where the presence of a complex formed indicates the presence of the bacteria;
- (6) an antibody to an Invaplex which recognizes the Invaplex (portion); and
- (7) eliciting an antigen-specific immune response in a subject comprising administering to the subject an Invaplex from a gram-negative bacteria along with the antigen where the antigen specific immune response is chosen from a group consisting of cell mediated immune response, humoral immune response and mucosal immune response.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

USE - The Invaplex is useful in a composition which is useful as an adjuvant (especially a mucosal adjuvant) for vaccines, biochemical or other substances and as a diagnostic tool, especially for detecting antibody responses which correlates with protection against future infection (e.g. in the form of a bio-sensor).

ADVANTAGE - The Invaplex is an effective adjuvant which results in very little reactogenicity or toxicity in addition to stimulating a

potent mucosal and serum immune response when administered along with the antigen. The method for the production of Invaplex produces it in higher yield by minimizing the time to prepare the water extract preparation. The Ipa proteins are extremely labile and degrade rather quickly and the method also uses a volume of water which is 1/20 the volume of the medium used to grow the culture instead of a ratio of 1/10.

pp; 72 DwgNo 0/0

Derwent Class: B04; D16

International Patent Class (Main): A61K-000/00

15/7/3

DIALOG(R) File 351:DERWENT WPI

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013065677

WPI Acc No: 2000-237549/200020

Obtaining protein-free carbohydrate or polysaccharide antigen from a bacterium useful for immunological assays for the detection of Legionella caused diseases

Patent Assignee: BINAX INC (BINA-N)

Number of Countries: 035 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200010584	A1	20000302	WO 99US19506	A	19990825	200020
AU 9956933	A	20000314	AU 9956933	A	19990825	200031

Priority Applications (No Type Date): US 98139720 A 19980825

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200010584 A1 E 31 A61K-035/74

Designated States (National): AT AU CA CH CN CZ DE DK ES FI GB HU IL IN JP KR LU MX NO NZ PL PT RU SE SK UA ZA

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

AU 9956933 A A61K-035/74 Based on patent WO 200010584

Abstract (Basic): WO 200010584 A1

NOVELTY - A method (I) for obtaining a protein free carbohydrate or polysaccharide antigen from a known Legionella bacterium or serogroup of species, is new.

DETAILED DESCRIPTION - A method (I) for obtaining a protein free carbohydrate or polysaccharide antigen from a known Legionella bacterium or serogroup of species, is new and comprises:

(1) culturing the bacterium to obtain a sample of desired size and harvesting the bacterial cells in the form of a wet cell pellet;

(2) suspending the wet cell pellet in an alkaline solution and mixing;

(3) adjusting the pH to an acid pH with a strong acid and centrifuging;

(4) separating the supernatant and adjusting its pH to approximate neutrality;

(5) digesting the product with a broad spectrum protease enzyme preparation to destroy residual proteins;

(6) adjusting the pH to alkaline with a weak alkaline solution; and

(7) pooling material eluted in the first peak and adjusting its pH

to approximate neutrality.

INDEPENDENT CLAIMS are also included for the following:

(1) a protein free carbohydrate or polysaccharide antigen of a bacterium obtained from a known Legionella pneumophila species or serogroup of species using (I);

(2) a method (II) for the purification of raw antibodies to a species or serogroup of a species of Legionella bacteria, comprising:

(a) separating from the same species or serogroup of a species of Legionella bacteria, a protein free carbohydrate or polysaccharide antigen ;

(b) conjugating the antigen to one end of the a two ended spacer molecule to form a conjugate of the protein free antigen with the spacer molecule;

(c) coupling the conjugate to an activated chromatographic column;

(d) subjecting the raw antibodies to affinity chromatography on the column from (c) to obtain purified antigen specific antibodies; and

(e) eluting from the column the purified antigen-specific antibodies;

(3) purified antigen-specific antibodies to a bacterium of at least one species or serogroup of species of L. pneumophila obtained by (II);

(4) a chromatographic column (III) for affinity purification of raw antibodies in method (II);

(5) a method (IV) for assaying for the presence of Legionella bacteria or their antigenic components in a fluid comprising purifying raw antibodies specific to L. pneumophila species and using the purified antibodies of to detect the presence or absence of the corresponding Legionella bacteria or their antigens in a fluid;

(6) a process (V) for detecting the presence of at least one species or serogroup of a species of Legionella bacteria or its antigen in a fluid medium, where the detecting agent is antigen specific Legionella antibodies obtained by (II); and

(7) an ICT (immunochromatographic test) assay (VI) for the detection of at least one species or serogroup of a species of Legionella bacteria or antigens of the bacteria, comprising:

(a) contacting a sample of a fluid suspected of containing the bacteria or their antigen with an ICT device comprising a strip of bibulous material comprising:

(i) a zone with a conjugate of a labelling agent (A) embedded in it, that displays a visible color change upon reaction of antibodies with their corresponding antigenic binding partner and purified antigen-specific conjugated antibodies (B) to the Legionella species to be detected; and

(ii) a second zone having bound the same purified antigen specific antibodies in unconjugated form which is equipped with a window for viewing color changes;

(b) allowing the sample to flow laterally along the test strip to the first zone;

(c) allowing the sample together with the conjugate of affinity purified antibodies and label to flow laterally along the test strip to the second zone and;

(d) within approximately 15 minutes from the commencement of (a), observing through the window whether a line of color has appeared in the second zone thereby indicating the presence in the sample of the Legionella bacteria species or serogroup that is sought to be detected.

USE - The purified antigens are useful for the affinity purification of polyvalent antibodies to corresponding Legionella organisms. The methods are also useful for the detection of Legionella caused diseases such as Legionnaires disease and Pontiac fever in humans and for the detection of environmental sources of Legionella infectious agents.

ADVANTAGE - The ICT has the ability to give a test result within a 15 minute time span for the presence or absence of L. pneumophila serogroup 1 (or its antigen) which results in high specificity and sensitivity. The test can be reliably and quickly conducted to yield a result of high specificity and high sensitivity and this is believed to be due to the strongly reactive nature of the affinity purified antibodies.

pp; 31 DwgNo 0/2  
Derwent Class: B04; D16  
International Patent Class (Main): A61K-035/74

15/7/4  
DIALOG(R) File 351:DERWENT WPI  
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013051662

WPI Acc No: 2000-223517/200019

Vaccines comprise toxins and an agent with Gb3 or GM1-binding activity or an agent which effects the intracellular signaling mediated by Gb3 or GM1-binding

Patent Assignee: UNIV BRISTOL (UYBR-N)

Inventor: HIRST T R; WILLIAMS N A

Number of Countries: 086 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9958145	A2	19991118	WO 99GB1461	A	19990510	200019 B
AU 9939394	A	19991129	AU 9939394	A	19990510	200019

Priority Applications (No Type Date): GB 9812316 A 19980608; GB 989958 A 19980508; GB 9811954 A 19980603

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9958145 A2 E 63 A61K-039/00

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9939394 A A61K-039/00 Based on patent WO 9958145

Abstract (Basic): WO 9958145 A2

NOVELTY - The use of a composition (I) comprising Escherichia coli heat-labile enterotoxin B (EtxB), cholera toxin B (CtxB) or E. coli verotoxin B (VtxB) free from whole toxin, another agent with GM1-binding activity, or another agent with Gb3-binding activity, or an agent affecting intracellular signals mediated by GM1 or Gb3 binding, as an immunomodulator for an infectious disease vaccine, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a vaccine composition for use against an infectious disease, which infectious disease is caused by an infectious agent, wherein the vaccine composition comprises an antigenic determinant and an immunomodulator of the novelty;

(2) a kit for vaccination of a mammalian subject against an infectious disease, comprising (I), and an antigenic determinant of the infectious disease, for co-administration with the vaccine immunomodulator;

(3) a method of preventing or treating a disease in a host, comprising inoculating the host with a vaccine comprising at least one antigenic determinant and an immunomodulator of the novelty; and

(4) a vaccine composition for use against an infectious disease caused by an infectious agent, comprising (I), where the antigenic determinant is of an infectious agent and the immunomodulator prolongs presentation of the antigenic determinant and gives sustained immunological memory.

ACTIVITY - Antiinfectious; virucide; antibacterial; protozoacide.

MECHANISM OF ACTION - Vaccine.

USE - The vaccine is used to treat infectious diseases. The infectious disease is caused by an infectious agent selected from herpes simplex virus (HSV)-1, HSV-2, Epstein Barr virus (EBV), zoster virus (VZV), cytomegalo virus (CMV), HHV-6, HHV-7 and HHV-8, or an influenza virus, especially parainfluenza virus, a respiratory syncytial virus, a hepatitis virus, e.g. A, B, C and D viruses, meningitis, Neisseria meningitides, Haemophilus influenzae type B and Streptococcus pneumoniae. The infectious disease is pneumonia or a respiratory tract infection. The infectious disease is caused by an infectious agent selected from Streptococcus pneumoniae, Legionella pneumophila and Mycobacterium tuberculosis. The infectious disease is a sexually-transmitted disease, e.g. Neisseria gonorrhoeae, human immunodeficiency virus (HIV)-1, HIV-2 and Chlamydia trachomatis. The infectious disease is a gastrointestinal disease caused by enteropathogenic, enterotoxigenic, enteroinvasive, enterohaemorrhagic and enteroaggregative E. coli, rotavirus, Salmonella enteritidis, Salmonella typhi, Helicobacter pylori, Bacillus cereus, Campylobacter jejuni and Vibrio cholerae. The infectious disease is a superficial infection caused by an infectious agent selected from Staphylococcus aureus, Streptococcus pyogenes and Streptococcus mutans. The infectious disease is a parasitic disease caused by selected from malaria, Trypanosoma spp., Toxoplasma gondii, Leishmania donovani and Oncocerca spp. (all claimed).

pp; 63 DwgNo 0/15

Derwent Class: B04; D16

International Patent Class (Main): A61K-039/00

15/7/5

DIALOG(R) File 351:DERWENT WPI

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013034156

WPI Acc No: 2000-206007/200018

New isolated Moraxella catarrhalis BASB023 polypeptides, useful for developing products for the prevention, treatment and diagnosis of e.g. otitis media, pneumonia, sinusitis or nosocomial infections

Patent Assignee: SMITHKLINE BEECHAM BIOLOGICALS (SMIK )

Inventor: THONNARD J

Number of Countries: 088 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200009694	A1	20000224	WO 99EP5828	A	19990811	200018 B
AU 9954227	A	20000306	AU 9954227	A	19990811	200030

Priority Applications (No Type Date): GB 9817824 A 19980814

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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WO 200009694	A1	E	98 C12N-015/31	
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Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9954227	A		C12N-015/31	Based on patent WO 200009694
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Abstract (Basic): WO 200009694 A1

NOVELTY - An isolated polypeptide comprising an amino acid sequence which has at least 85% identity to an 269 residue amino acid sequence, fully defined in the specification, corresponding to the *Moraxella catarrhalis* BASB023 polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (I) having the 269 residue sequence;
- (2) an isolated polypeptide (II) having a variant 269 residue amino acid sequence, fully defined in the specification;
- (3) an immunogenic fragment of (I) or (II) in which the immunogenic activity of the immunogenic fragment is the same as (I);
- (4) an isolated PN comprising a nucleotide sequence (NS) encoding a polypeptide that has at least 85% identity to (I) over its entire length, or a NS complementary to the isolated PN;
- (5) an isolated PN comprising a NS that has at least 85% identity to a NS encoding a (I) over the entire coding region, or a NS complementary to the isolated PN;
- (6) an isolated PN (III) which comprises a NS which has at least 85% identity to an 810 nucleotide sequence, fully defined in the specification and corresponding to a *Moraxella catarrhalis* BASB023 polynucleotide, over its entire length, or a NS complementary to the isolated PN;
- (7) an isolated PN comprising a NS encoding (I), obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having a sequence (III) or a fragment;
- (8) an isolated PN comprising a variant 810 nucleotide sequence, fully defined in the specification;
- (9) an isolated PN comprising a NS encoding a polypeptide of sequence (II), obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having a sequence (III) or a fragment;
- (10) an expression vector or recombinant live microorganism comprising an isolated PN of (4)-(9);
- (11) a host cell comprising an expression vector of (10) or a subcellular fraction or a membrane of the host cell expressing an isolated polypeptide comprising an amino acid sequence that has at least 85% identity to an amino acid sequence (I);
- (12) a process for producing the novel polypeptide, comprising



culturing the host cell (11) under expression conditions and recovering the polypeptide;

(13) a process for expressing a PN of (4)-(9), comprising transforming a host cell with the expression vector comprising on of the PN and culturing under expression conditions;

(14) a vaccine composition comprising (I), (II), an immunogenic fragment of (I) or (II), or a PN of (4)-(9), and a carrier;

(15) an antibody immunospecific for (I), (II) or the immunogenic fragment of (2);

(16) a method of diagnosing a Moraxella infection, comprising identifying (I), (II), the immunogenic fragment of (2) or the antibody of (15) in a biological sample from a suspect animal; and

(17) a therapeutic composition for treating Moraxella catarrhalis disease in humans, comprising at least one antibody of (15), and a carrier.

ACTIVITY - Antibacterial; Auditory; Antiinflammatory.

MECHANISM OF ACTION - Vaccine. Polyvalent antisera directed against the BASB023 protein were generated by vaccinating 2 rabbits with the purified recombinant BASB023 protein. Each animal was given a total of 3 immunizations intramuscularly (i.m.) of about 20micro-g BASB023 protein per injection (beginning with complete Freund's adjuvant and followed with incomplete Freund's adjuvant) at approximately 21 day intervals. Animals were bled prior to the first immunization and on days 35 and 57. Anti-BASB023 protein titers were measured by an enzyme linked immunosorbant assay (ELISA) using purified recombinant BASB023 protein (0.5micro-g/well). The titer was defined as the highest dilution at least 0.1 as calculated with the following equation: average OD of 2 test samples of antisera - the average OD of 2 test samples of buffer. The titers after 3 immunizations were above 3000.

USE - The Moraxella catarrhalis can cause diseases such as otitis media, pneumonia, sinusitis and nosocomial infections. The polypeptides and PNs can be used as vaccines (claimed) to protect against infection, particularly Moraxella catarrhalis infections. The antibodies can be used for treating humans with Moraxella catarrhalis disease (claimed). The detection of the polypeptides or antibodies can be used for diagnosing Moraxella infection (claimed). The products can also be used for detection and drug screening.

pp; 98 DwgNo 0/6

Derwent Class: B04; D16; S03

International Patent Class (Main): C12N-015/31

International Patent Class (Additional): A61K-038/16; C07K-014/21;

C07K-016/12; G01N-033/53

15/7/6

DIALOG(R) File 351:DERWENT WPI

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012933816

WPI Acc No: 2000-105663/200009

Use of compositions containing a receptor ligand and a receptor ligand binding molecule for treating e.g. infections, inflammatory or immune disease or disorder or cancers

Patent Assignee: UNIV MARYLAND BIOTECHNOLOGY INST (UYMA-N)

Inventor: BURNS J M; DEVICO A L; GALLO R; LEWIS G K

Number of Countries: 085 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9962535	A2	19991209	WO 99US12137	A	19990601	200009 B
AU 9943254	A	19991220	AU 9943254	A	19990601	200021

Priority Applications (No Type Date): US 9887436 A 19980601

#### Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9962535	A2	E	70 A61K-038/00	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
 CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
 LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
 SL TJ TM TR TT UA UG UZ VN YU ZA ZW  
 Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
 IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW  
 AU 9943254 A A61K-038/00 Based on patent WO 9962535

Abstract (Basic): WO 9962535 A2

NOVELTY - The use of compositions containing a receptor ligand (RL) and a receptor ligand binding molecule (RLBM) for treating diseases or conditions related to ligand/receptor signaling is new.

DETAILED DESCRIPTION - Method (I) of treating a disease or condition which is caused by or contributed to by the function of a ligand/receptor-mediated signaling pathway or which is dependent upon the extracellular recognition of a receptor by an infectious agent, comprises administering to a patient a composition which includes a RL, and a RLBM, where the composition is capable of antagonizing the function of the receptor or altering the extracellular recognition of the receptor by the infectious agent, to treat the disease or condition.

INDEPENDENT CLAIMS are also included for the following:

(1) a method (II) of inhibiting a chemokine receptor-mediated infection comprising contacting a cell with a formulation which includes a chemokine which binds to the chemokine receptor, and a chemokine binding molecule (CBM) which binds to the chemokine where the formulation is capable of inhibiting the chemokine receptor-mediated infection and suppressing signal transduction from the chemokine receptor; and

(2) a method (III) of treating or preventing infection of a subject by HIV comprising administering to the subject a composition which includes a chemokine and a CBM, where the composition resulting from the combination of the chemokine and the CBM confers a longer soluble plasma half-life upon the chemokine than the soluble plasma half-life of the chemokine when administered without the CBM and where the composition is further capable of suppressing signal transduction from a receptor to which the chemokine ordinarily binds;

ACTIVITY - Anti-microbial, immunomodulatory, neurotropic, catabolic, etc.

MECHANISM OF ACTION - Chemokine receptor antagonist by competitive inhibition thereby altering the extracellular recognition of the receptor by the infectious agent.

USE - The methods can be used for treating an infectious disease caused by a virus e.g. HIV, Epstein-Barr virus, rhinovirus, poliovirus, rabies virus, reovirus, influenza virus, herpes simplex virus, hepatitis virus, togavirus, varicella-zoster virus, paramyxovirus, cytomegalovirus, subacute sclerosing panencephalitis virus, adenovirus, poxvirus, reovirus, papovavirus, papillmavirus, polyomavirus, slow virus, or bacteria, e.g. Helicobacter pylori, Borelia burgdoferi,

Legionella pneumophila, Mycobacterium tuberculosis, M. avium M. intracellulare, M. kansasii, M. goodii, M. leprae, Staphylococcus aureus, Neisseria gonorrhoeae, N. meningitidis, Listeria monocytogenes, S. pyogenes, S. agalactiae, S. faecalis, S. bovis, S. anginosus, S. pneumoniae, pathogenic Campylobacter species, pathogenic Enterococcus species, Haemophilus influenzae, Bacillus anthracis, Corynebacterium diphtheriae, Enterobacter aerogenes, Klebsiella pneumoniae, Pasteurella multocida, pathogenic Bacteroides fragilis group species, Fusobacterium nucleatum, Streptobacillus moniliformis, Treponema pallidum, Treponema pertense, Leptospira, and Actinomyces israelii, fungi, e.g. Cryptococcus neoformans, Histoplasma capsulatum, Coccidioides immitis, Blastomyces dermatitidis, Chlamydia trachomatis, and Candida albicans, or a microbe, e.g. Bacillus anthracis, a pathogenic Bordetella species, Bordetella pertussis, Clostridium botulinum, C. tetani, Vibrio cholerae, Corynebacterium diphtheriae, E. coli, Pseudomonas aeruginosa, and Shigella dysenteriae (claimed). They can also be used for treating an inflammatory or an immune disease or disorder (e.g. AIDS) or cancer (claimed). In particular, they can be used for treating e.g. systemic lupus erythematosus, glomerulonephritis, vasculitis, pyogenic infections, immune complex disease, adult respiratory distress syndrome, septic shock or multiple organ failure, vascular diseases or disorders, cardiac disorders, cardiovascular system diseases and disorders, wound healing, limb regeneration, periodontal regeneration, neurological damage or diseases, e.g., Alzheimer's disease, Parkinson's disease, AIDS-related complex, cerebral palsy, depression or neuroendocrine disorders such as hyperthyroidism or hypertension, other diseases, conditions or disorders which result from aberrations or alterations of cell receptor-dependent processes including collateral growth and remodeling of cardiac blood vessels, angiogenesis, cellular transformation through autocrine or paracrine mechanisms, chemotactic stimulation of cells (e.g. endothelial), neurite outgrowth of neuronal precursor cell types (e.g. PC12 pheochromocytoma). They can also be used for treating e.g. insulin-dependent hypoglycemic condition or amyloid diseases and to promote skeletal muscle development thereby increasing muscle mass in livestock and obviating the need for excessive use of antibiotics and hormones to improve feed conversion and weight gain in animals. The methods can also be used in drug screening.

ADVANTAGE - The combination of the RL and the RLBM has a longer plasma half-life than the RL alone and provides more effective therapy. Since the complexes are unable to trigger receptors, they should prove to be free from undesirable side effects resulting from the continued activation of their target receptor as has been observed in the use of chemokines to block HIV infection.

pp; 70 DwgNo 0/7

Derwent Class: B04

International Patent Class (Main): A61K-038/00

15/7/7

DIALOG(R) File 351:DERWENT WPI

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012924953

WPI Acc No: 2000-096789/200008

New bacterial proteins useful for preparing vaccines for treating bacterial infections, especially shigellosis

Patent Assignee: JACKSON FOUND ADVANCEMENT MILITARY MED (JACK-N); SANDLIN R C (SAND-I); SCHUCH R (SCHU-I)

Inventor: MAURELLI A T; SANDLIN R C; SCHUCH R

Number of Countries: 021 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9955364	A2	19991104	WO 99US8804	A	19990422	200008 B
AU 9937559	A	19991116	AU 9937559	A	19990422	200015

Priority Applications (No Type Date): US 9882944 A 19980424

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9955364	A2	E	69	A61K-039/02	
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Designated States (National): AU CA JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

AU 9937559	A			A61K-039/02	Based on patent WO 9955364
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Abstract (Basic): WO 9955364 A2

NOVELTY - A protein or its portion (I) that directs the secretion of a virulent bacterial protein (II) useful for preparing a vaccine (III) for preventing or treating bacterial infections mediated by (II).

DETAILED DESCRIPTION - An immunostimulatory amount of (I) dissolved or suspended in a pharmaceutically acceptable carrier or delivery vehicle is present in (III) which is useful for preventing or treating infections mediated by (II).

INDEPENDENT CLAIMS are also included for the following:

(1) vaccine (IV) for treating infections mediated by (II), comprising a plant (V) cell expressing immunostimulatory amounts of (I) after being transformed with a DNA encoding (I), dissolved in a pharmaceutically acceptable carrier or delivery vehicle;

(2) DNA construct (VI), that codes for the expression of heterologous DNA in (V);

(3) diagnostic kit (VII), for detecting Shigella comprising:

(a) antibody (Ab) reagent comprising an Ab specific to MxiM in aqueous solution; and

(b) detection reagent;

(4) qualitative or quantitative determination of the presence or amount of Shigella in a test sample comprising:

(a) contacting the test sample with a MxiM Ab reagent comprising an Ab specific to MxiM in a aqueous solution;

(b) contacting the products of the first step with a detection reagent; and

(c) determining the specific binding of MxiM Ab reagent as a determination of Shigella in the test sample;

(5) testing the role of a gene of interest (TIER-Test of intracellular expression requirements) from a pathogen comprising:

(a) generating DNA constructs (D) by cloning a gene of interest (G) into expression vector systems (E) that allow for differential expression of (G);

(b) disrupting the endogenous copy of (G) in pathogen;

(c) introducing (D) into the pathogen;

(d) infecting the appropriate cells with the transformed pathogen;

and

(e) assaying for gene function;

(6) inhibiting the cell-to-cell spread of bacterial pathogens comprising the administration of an anti-MxiM Ab;

(7) vehicle for gene delivery comprising a bacterial gene determined to be necessary for post-invasion events by TIER and modified to permit invasion but to preclude formation of disease or bacterial spread; and

(8) detecting Shigella comprising:

(a) introducing a labeled mxim DNA probe to a sample; and

(b) detecting any binding between the mxim DNA probe and the sample and the binding indicates the presence of Shigella.

ACTIVITY - Antibacterial.

No supporting data given.

MECHANISM OF ACTION - Vaccine.

USE - The new protein i.e. MxiM protein of S.flexneri is used as an antigen in a vaccine to prevent or treat Shigella infections. (III) and (IV) are used for preventing or treating infections caused by bacterial pathogens such as Shigella i.e. shigellosis by administration into a patient (claimed). They are also used for treating infections caused by Salmonella, Yersinia, enterohemorrhagic and enteropathogenic Escherichia coli, Pseudomonas, Burkholderia, Chlamydia, Bordetella, Xanthomonas, Ralstonia, Mycobacterium, Legionella, Erwinia, Listeria, in humans, economically important plants such as soybeans, tomatoes, papaya, citrus fruit and in household pets. The protein is also useful or diagnosing the presence of Shigella (claimed) clinically in stool samples, in environmental samples such as food or water, by an anti-MxiM Ab which detects the presence of MxiM or its portion. The protein is also used to produce anti-MxiM Abs. The MxiM DNA is used for detecting Shigella in contaminated food and water supplies and in infected hosts. The TIER is used for determining the intracellular expression requirements of genes and therefore permitting one to establish the role of genes in the pathogenesis of the invasive microorganisms (claimed) using type III secretion system such as Salmonella spp, Pseudomonas aeruginosa, E.coli and also those microorganisms which use other pathogenic strategies such as Mycobacteria spp, Legionella spp and Rickettsia.

pp; 69 DwgNo 0/6

Derwent Class: B04; C06; D16; S03

International Patent Class (Main): A61K-039/02

International Patent Class (Additional): A61K-039/112; A61K-039/395;

C12N-015/82; C12Q-001/02; C12Q-001/04; G01N-033/569

15/7/8

DIALOG(R) File 351:DERWENT WPI

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012457327 \*\*Image available\*\*

WPI Acc No: 1999-263435/199922

Inhibiting pathogenic toxins in mammals

Patent Assignee: GELTEX PHARM INC (GELT-N)

Inventor: MANDEVILLE W H; NEENAN T X

Number of Countries: 083 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9915186	A1	19990401	WO 98US18881	A	19980908	199922 B
ZA 9808278	A	19990526	ZA 988278	A	19980910	199927
AU 9893837	A	19990412	AU 9893837	A	19980908	199934
US 6007803	A	19991228	US 97934495	A	19970919	200007

Priority Applications (No Type Date): US 97934495 A 19970919

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9915186 A1 E 55 A61K-031/785

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU  
CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

ZA 9808278 A 53 A61K-000/00

AU 9893837 A

Based on patent WO 9915186

US 6007803 A A61K-031/785

Abstract (Basic): WO 9915186 A1

NOVELTY - Inhibiting pathogenic toxins in mammals comprises  
administration of a polymer comprising a cationic group.

ACTIVITY - None given.

MECHANISM OF ACTION - Toxin inhibitor.

A solution of a polymer was prepared by dissolving polymer (100 mg)  
obtained from polyethyleneimine and n-hexyl bromide in deionized water  
(1 ml). Shiga toxin stock solution (25 µl) comprising type 1 or type 2  
Shiga toxin (1 µg/ml) was added to the solution. The polymer-toxin  
solution was incubated for 5.5 hours and each solution (100 µl) was  
analyzed by EIA analysis, a spectrophotometric analysis where the  
decrease of fluorescence detected at 450 nm (relative to control) is a  
measure of the efficiency of toxin binding.

Results showed that the fluorescence intensity for type 1 toxin was  
0.092 fluorescence units and the fluorescence intensity for type 2  
toxin was 0.081, indicating highly effective toxin binding.

USE - Used to inhibit pathogenic toxins associated with  
Streptococcus, Salmonella, Campylobacter, Escherichia coli, Clostridium  
difficile, Staphylococcus, Shigella, Pneumocystis, Giardia lamblia or  
Entamoeba histolytica, particularly Streptococcus pneumoniae and S.  
pyogenes, Salmonella enteritidis, Campylobacter jejuni, Clostridium  
botulinum, Staphylococcus aureus, Shigella dysenteriae, Pseudomonas (P.  
aeruginosa, Bordetella pertussis, Listeria monocytogenes, Vibrio  
cholerae, Yersinia enterocolitica, Legionella pneumophila, Bacillus  
anthracis and protozoal toxins such as those produced by Entamoeba  
histolytica and Acanthamoeba. The polymer is used to treat infections  
of various body organs, particularly the skin and gastrointestinal  
tract.

ADVANTAGE - The polymers may be easily prepared from cheap starting  
materials. The polymers are not degraded in the digestive tract and can  
be administered orally. Compositions can be varied readily to optimize  
properties such as solubility or water swellability and anti-toxin  
activity.

pp; 55 DwgNo 0/0

Derwent Class: A14; A96; B04

International Patent Class (Main): A61K-000/00; A61K-031/785

International Patent Class (Additional): C08L-000/00

15/7/9

DIALOG(R) File 351:DERWENT WPI

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012457318

WPI Acc No: 1999-263426/199922

Using non-pyrogenic variants of lipopolysaccharide or lipid A

Patent Assignee: UNIV MARYLAND BIOTECHNOLOGY INST (UYMA-N)

Inventor: CROWLEY R; HONE D M; LEWIS G

Number of Countries: 019 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9915162	A2	19990401	WO 98US20264	A	19980928	199922 B

Priority Applications (No Type Date): US 97938106 A 19970926

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9915162	A2	E	69	A61K-031/00	
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Designated States (National): US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

Abstract (Basic): WO 9915162 A2

NOVELTY - Treatment or prevention of immune deficiency virus (IV) infection, or its consequences, in humans comprises administering a variant, derivative or analog (I) of lipopolysaccharide (LPS) or lipid A that (a) has no pyrogenicity, or reduced pyrogenicity compared with its parent compound, and (b) induces secretion of at least one beta-cytokine.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) method of screening (I) for ability to inhibit IV replication or expression of IV-derived RNA or protein, or to alleviate symptoms of IV-induced disorders; and

(b) pharmaceutical compositions containing (I).

ACTIVITY - Antiviral.

MECHANISM OF ACTION - (I) stimulate secretion of beta-cytokines and prevent replication of IV in human peripheral blood monocytes, probably by acting as competitive inhibitors of LPS binding to CD14.

LPS was extracted from the Escherichia coli mutant MLK986, having inactivating mutations in the genes for both myristoyl transferase and lauroyl transferase, then incubated (at 1 mug/ml) with monocyte-derived macrophages and these infected with human IV-1 Bal. After 10 days the level of p24 antigen in the culture supernatant was, in enzyme-linked immunosorbent assay units, 0.01; compare 0.035 when using wild-type LPS and 1.64 when no LPS was added.

USE - (I) are particularly used to treat or prevent infection with human IV and its consequences, e.g. acquired immune deficiency syndrome (AIDS), AIDS-related complex and Kaposi sarcoma.

ADVANTAGE - (I) stimulate release of beta-cytokines but not release of pyrogenic cytokines, and are not toxic.

pp; 69 DwgNo 0/5

Derwent Class: B04; D16

International Patent Class (Main): A61K-031/00

15/7/10

DIALOG(R) File 351:DERWENT WPI

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009769037

WPI Acc No: 1994-048888/199406

Detection of viral or bacterial pathogens in vitro - using cell cultures  
potentiated with mycoplasmas

Patent Assignee: INT MICROBIO (ITMI-N); INT MYCOPLASMA (ITMY-N)

Inventor: ESCARGUEL C; PAPIEROK G; PAUTRAT G

Number of Countries: 019 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9402630	A1	19940203	WO 93FR740	A	19930720	199406 B
FR 2694022	A1	19940128	FR 929263	A	19920721	199408
EP 649473	A1	19950426	EP 93916020	A	19930720	199521
			WO 93FR740	A	19930720	
EP 649473	B1	19970611	EP 93916020	A	19930720	199728
			WO 93FR740	A	19930720	
DE 69311552	E	19970717	DE 611552	A	19930720	199734
			EP 93916020	A	19930720	
			WO 93FR740	A	19930720	
ES 2105296	T3	19971016	EP 93916020	A	19930720	199748

Priority Applications (No Type Date): FR 929263 A 19920721

Cited Patents: 6.Jnl.Ref

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9402630	A1	16	C12Q-001/04		
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Designated States (National): CA JP US

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL  
PT SE

FR 2694022	A1	11	C12Q-001/04		
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EP 649473	A1 F		C12Q-001/04	Based on patent WO 9402630	
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Designated States (Regional): DE ES IT

EP 649473	B1 F	7	C12Q-001/04	Based on patent WO 9402630	
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Designated States (Regional): DE ES IT

DE 69311552	E		C12Q-001/04	Based on patent EP 649473	
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Based on patent WO 9402630

ES 2105296	T3		C12Q-001/04	Based on patent EP 649473	
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Abstract (Basic): WO 9402630 A

Detection of pathogens in vitro using cell cultures comprises an exosystem representative of the relevant pathological sphere reconstituted in vitro with cell components permissive for the pathogens, together with mycoplasmas capable of potentiating the multiplication of the pathogens in the cell culture.

The method comprises culturing the target cells in flasks; removing the supernatant; adding a growth-phase mycoplasma culture; agitating at 36-39 deg. C for ca 1 hr.; adding cell culture medium; trypsinising the cells after 2-3 days; removing the supernatant; adding the pathogen in a small vol. of serum-free medium; agitating at 37 deg. C for 1 hr.; adding serum; culturing at 37 deg. C for 3 days; and detecting pathogens by ELISA using an enzyme-labelled monoclonal antibody to a pathogen-specific antigen.

USE/ADVANTAGE - The method may be used to detect viruses (e.g. HSV or RSV) or bacteria (e.g. Chlamydia, Legionella or Hysteria (sic, Listena)). Cocultivation with mycoplasmas provides substantial (e.g. 1.5- to 4-fold) signal amplification.

Dwg.0/0

Abstract (Equivalent): EP 649473 B

Method of amplifying infectious agents for in vitro diagnosis in



cell cultgures, characterised by the use of an ecosystem representing the pathological sphere concerned, reconstituted in vitro with cells receptive to the said agents, with the addition of living mycoplasmas as an element for facilitating viral or bacterial multiplication in a cell culture of viruses (e.g. HSV) and bacteria (e.g. Chlamydiae, Legionella, Listeria).

Dwg.0/0

Derwent Class: B04; D16; S03

International Patent Class (Main): C12Q-001/04

International Patent Class (Additional): G01N-033/569

15/7/11

DIALOG(R) File 351:DERWENT WPI

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008547250

WPI Acc No: 1991-051313/199107

New 5'-diphosphohexose-nucleoside derivs. - with antiviral, antibacterial, antifungal, antiinflammatory and anticancer activity, esp. for treating HIV and infections concurrently

Patent Assignee: UNIV ALABAMA (UYAL-N); UNIV GEORGIA RES FOUND INC (UYGE-N); UAB RES FOUND (UABR-N)

Inventor: CHUNG C K; SCHINAZI R F; SOMMADOSSI J; CHU C K; SOMMADOSSI J P

Number of Countries: 015 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9100867	A	19910124				199107 B
US 5159067	A	19921027	US 877473	A	19870128	199246
			US 87104438	A	19871002	
			US 89377617	A	19890710	

Priority Applications (No Type Date): US 89377617 A 19890710; US 877473 A 19870128; US 87104438 A 19871002

Cited Patents: EP 306597; EP 352248; EP 357571; FR 2042290; FR 2051064; US 3328389; US 4230698; US 4847244; US 4879277; US 4916122; WO 8912062

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9100867	A		C		
Designated States (National): CA JP					
Designated States (Regional): AT BE CH DE DK ES FR GB IT LU NL SE					
US 5159067	A		13	C	CIP of application US 877473
					CIP of application US 87104438
					CIP of patent US 4916122

Abstract (Basic): WO 9100867 A

Nucleosides of formula (I) are new. In (I), A, B and C = H, halogen or azido; D = H, halogen, azido or OH; A and B or C and D can be replaced with a double bond; R = aldohexose, aldohexosamine or N-acetyl aldohexosamine; R1 and R2 = H, 1-10C alkyl; W = O, S; X = O, S or CH2; Y = purine, pyrimidine base; and Z = C, S or O, when Z = S or O, A and C are not present.

Several specific gps. of cpds. are claimed e.g.

5'-diphosphohexose, 5-diphosphohexosamine or N-acetyl diphosphohexosamine derivatives of 3'-fluoro-3'-deoxy-thymidine, 3'-fluoro-2', 3'-dideoxy-5-methylcytidine etc.. Dose is 1-60 mg/kg body wt./day to produce a serum concn. 0.2-40 micron of active ingredient.

Administered as single or divided daily dose. (I) must be administered in a way that protects them until they reach the target cell pref. in a liposomal suspension either intraperitoneally, subcutaneously or intravenously.

USE/ADVANTAGE - (I) has antiviral, esp. anti HIV activity, anti-bacterial activity, partic. to opportunistic infections caused by M avian intracellulare, M tuberculosis, Legionella, Pneumocystis carinii, Salmonella, Shigella, anti-fungal and anti-inflammatory action. They are claimed cancer cpds.. Anti-bacterial activity is possible by the deriv. interfering with the biosynthesis of oligosaccharides, polysaccharides, glycolipids or glycoproteins or interfere once with maintenance of the bacterial cell wall through the inhibition of peptidoglycan biosynthesis. (87pp Dwg.No.0/11)

Abstract (Equivalent): US 5159067 A

5'-Diphosphohexose cpds. of formula (I) are new. In the formula A, B and C are H, halo or N3; D is H, halo, N3 or OH; or ABC and D can be replaced by a double bond; R is an aldohexose, aldohexosamine or N-acetylaldohexosamine; R1 and R2 are H or HOC alkyl; W is O or S; X is O, S or CH2; Y is purine or pyrimidine; and Z is, C S or O; provided that when Z is S or O, A and C are absent several cpds. are specifically claimed e.g. 5'-diphosphohexose.

USE/ADVANTAGE - The cpds. have enhanced activity or increased intracellular absorption over the parent nucleosides. They prevent or treat viral and other diseases esp. AIDS, ARC etc. Admin is oral, by injection or by other means.

Dwg.0/0

Derwent Class: B02; B03; C01

International Patent Class (Main): C07H-017/00

International Patent Class (Additional): A61K-031/70; C07D-307/00; C07D-333/02; C07D-473/00; C07H-019/10

15/7/12

DIALOG(R) File 351:DERWENT WPI

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007280662

WPI Acc No: 1987-277669/198739

Monoclonal antibodies to Legionella - used for diagnosis of legionnaire's disease and for detection of bacteria in environmental samples

Patent Assignee: UNIV TENNESSEE RES CORP (UYTE-N)

Inventor: HOFFMAN P'S

Number of Countries: 012 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8705609	A	19870924	WO 87US464	A	19870311	198739 B
EP 259457	A	19880316	EP 87901984	A	19870311	198811
US 4931547	A	19900605	US 88205625	A	19880531	199026

Priority Applications (No Type Date): US 86838685 A 19860312; US 88205625 A 19880531

Cited Patents: 2.Jnl.Ref; US 4514509

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 8705609 A E 18

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

EP 259457 A E

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

Abstract (Basic): WO 8705609 A

A monoclonal antibody (MAb) reactive to a genus-specific epitope present on outer membrane proteins of bacteria of the genus *Legionella* is new. Pref. the outer membrane proteins are selected from 28KD and 60KD apparent mol.wt. outer membrane proteins of *Legionella pneumophila*.

Pref. the outer membrane protein oligomers are reduced to soluble monomers. For *L-pneumophila*, this is pref. carried out by extn. of the proteins from membrane material with 2-mercapto-ethanol and boiling in 2% SDS for 10 mins. The solubilised material is subjected to gel filtration to separate extracted proteins from the outer membrane LPS material. The method also separates proteins which contain genus-specific epitopes.

USE/ADVANTAGE - The MAbs are used for the diagnosis of Legionnaire's disease and for the detection of the bacteria in environmental samples. They are partic. suitable for antigen capture assays with colorimetric reagents such as ELISA. Unlike known assays employing polyclonal antisera, the genus specific MAbs minimise problems with cross-reactivity with other bacteria. They are useful for detecting all strains of *Legionella* and not only *L-pneumophila*.

Dwg.0/0

Abstract (Equivalent): US 4931547 A

A monoclonal antibody that specifically binds a genus-specific epitope present on outer membrane proteins of bacteria of the genus *Legionella* is new.

Pref. the outer membrane proteins are (a) 60 kDa apparent mol. wt. outer membrane protein of *Legionella pneumophila* or (b) outer membrane proteins of other species of *Legionella* with genus-specific epitopes corresp. to that of the *Legionella* (a).

Also claimed is an immortal, mammalian antibody-producing cell line that produces the monoclonal antibody.

USE/ADVANTAGE - Useful in the diagnosis of e Legionnaire's disease.

(5pp)

Derwent Class: B04; D16

International Patent Class (Additional): C07K-015/04; C12N-005/00

15/7/13

DIALOG(R) File 351:DERWENT WPI

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007257920

WPI Acc No: 1987-254927/198736

Anti- legionella bacteria polysaccharide antibody-sensitised haematocytes - comprise opt. fixed erythrocytes bonded to antibody via tannic acid coupling agent, for determ. of saccharide antigen conc. etc

Patent Assignee: SEINANSOHOHKAHATS (SEIN-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 62177451	A	19870804	JP 8618088	A	19860131	198736 B

Priority Applications (No Type Date): JP 8618088 A 19860131

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
JP 62177451 A 5

Abstract (Basic): JP 62177451 A

Antibody-sensitised hemacytes comprise erythrocytes bonded with anti-legionella bacteria polysaccharide antibody via coupling agent. Fixed erythrocytes are opt. used. Tannic acid is e.g. used as a coupling agent.

USE/ADVANTAGE - Sensitised hemacytes are used in determination of concn. of legionella bacteria polysaccharide antigen in short time, easily and conveniently. Early diagnosis of legionellosis is possible with correct precision. Suitable therapy may be carried out at early stage.

0/0

Derwent Class: B04; D16; S03

International Patent Class (Additional): A61K-039/02; G01N-033/56

15/7/14

DIALOG(R) File 351:DERWENT WPI

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007256540

WPI Acc No: 1987-253547/198736

Anti- legionella polysaccharide antibody sensitising latex - allows accurate and early diagnosis using 0.025 ml sample

Patent Assignee: SEINAN SAGO KAIHATS (SEIN-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 62174659	A	19870731	JP 8614681	A	19860128	198736 B

Priority Applications (No Type Date): JP 8614681 A 19860128

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
JP 62174659 A 5

Abstract (Basic): JP 62174659 A

Anti Legionella bacteria originated polysaccharide antibody sensitizing latex, where on the surface of the particles, anti Legionella polysaccharide antibody is supported.

USE/ADVANTAGE - By using this sensitizing latex, the polysaccharide antigen concn. of Legionella bacteria in humors can be assayed quantitatively, easily and simply in a short time. Early diagnosis of Legionella infection is achieved exactly by only using about 0.025 ml of sample, and by heating the sample.

In an example as the latex particles, av. particle size of 0.01 - 10 microns and density of 0.9 - 2.0 are used. Esp. polystyrene latex of particle size 0.1 - 1.0 microns  $\alpha = 0.9 - 2.0$  is pref. Legionella pneumophila ATCC 33/52 is cultured on B-CYE agar medium at 37 deg.C under CO<sub>2</sub> for 2 days and cells can be obtd. From this, anti Legionella...

antibody is obtd. by immunizing rabbits, or goats. From this, polysaccharides antigen is extd, using phenol H<sub>2</sub>O. Next, anti Legionella poly-saccharide antibody (PS-antibody) is sepd. from anti Legionella antibody, by adding polysaccharide antigen into antibody to form immunocomplex and pH regulation (2.8). For sensitization, the PS antibody to latex particles, both are contacted

in saline (pH 5.5 - 10) pref. in buffer (pH 6.4 - 7.6) in concentration of latex at 0.05 - 3%, at 4 - 40 deg.C for 30 min - 24 hours by slow stirring.

Derwent Class: A96; B04; D16; S03

International Patent Class (Additional): A61K-039/02; G01N-033/56

15/7/15

DIALOG(R) File 351:DERWENT WPI

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007116951

WPI Acc No: 1987-116948/198717

New monoclonal antibody - reactive with Legionella pneumophila of serogroup-1 only, useful as diagnostic reagent

Patent Assignee: PROGEN BIOTECHNIK GMBH (PROG-N)

Number of Countries: 014 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3537272	A	19870423	DE 3537272	A	19851019	198717 B
EP 221365	A	19870513	EP 86113725	A	19861003	198719
JP 62187497	A	19870815	JP 86246459	A	19861016	198738

Priority Applications (No Type Date): DE 3537272 A 19851019

Cited Patents: 5.Jnl.Ref; A3...8915; EP 119893; No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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DE 3537272	A		7		
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EP 221365	A	G			
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Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

Abstract (Basic): DE 3537272 A

New monoclonal antibody (MAb) of class IgG 3 reacts with Legionella pneumophila, reacts with most strains of L. pneumophila serogroup 1 and does not react with strains from other serotypes. 62 strains of serogroup are listed which react with MAb and 33 Legionella strain which do not react with MAb. Also new is the hybridoma 85100801 (NCACC) which produces MAb.

Immunosuppressed mice are intraperitoneally injected with L. pneumophila strain OLDA. Several days later spleen cells recovered and fused with the mouse cyeloma cell line P3-X63-Ag8.653, Hybridomas are selected, cloned and cultivated, then tested and selected for reaction with appropriate strains. The final selected hybridoma is then introduced intraperitoneally into BALB/c mice, 7-60 days after conditioning the animals with 'Pristane' (RTM). Some days later the ascites fluid is recovered, cells removed and MAb recovered from the supernatant.

MAb is pref. used in agglutination tests with reaction time less than 5 min. and can be applied to samples of urine, serum, spetum, plural exudate, lung puncture material or water. MAb can also be used in immunofluorescence, ELISA or staphylococcal coagglutination tests.

USE/ADVANTAGE - MAb is useful as a diagnostic reagent for identifying the causative agent of Legionnaire's disease.

0/0

Derwent Class: B04; D16; S03

International Patent Class (Additional): A61K-039/39; C07K-015/04;

C12N-005/00; C12N-015/00; C12P-021/00; C12Q-001/00; C12R-001/91;  
G01N-033/57

15/7/16

DIALOG(R) File 351:DERWENT WPI  
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004497895

WPI Acc No: 1986-001239/198601

Recombinant Escherichia coli clones ATCC 39724-39726 - useful for  
expressing Legionella pneumophila antigens for rapid diagnosis of  
Legionnaires disease

Patent Assignee: REGENTS OF UNIV TEX (UYTE-N); UNIV OF TEXAS SYSTE (TEXA )  
; UNIV TEXAS (TEXA )

Inventor: DRUTZ D J; EISENTEIN B L; ENGLEBERG N C

Number of Countries: 010 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 165658	A	19851227	EP 85301978	A	19850321	198601 B
AU 8540421	A	19860102				198608
JP 61009283	A	19860116	JP 8599462	A	19850510	198609
BR 8502442	A	19860128				198611
US 4722891	A	19880202	US 84622567	A	19840620	198808
CA 1236413	A	19880510				198823

Priority Applications (No Type Date): US 84622567 A 19840620

Cited Patents: 6.Jnl.Ref; A3...8747; No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 165658	A	E	32		
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Designated States (Regional): BE DE FR IT SE

Abstract (Basic): EP 165658 A

Recombinant cell characterised as cell surface expressing  
Legionella pneumophila specific antigen is new. Recombinant cell E.  
strains deposited as ATCC 39724 39726 and 39725 are new. The cell  
surfaces express respectively the 19K, 24K and 66/68K Legionella  
pneumiphilia specific antigen.

Detection of anti-Legionella pneumophila antibodies in a  
clinical sample comprises preforming a whole cell ELISA on the sample  
by using a recombinant cell(s) as defined above.

USE/ADVANTAGE - Legionnaire's disease can be diagnosed rapidly,  
sensitively and specifically by using the antigen to direct antibodies  
circulating in the patient's body; alternatively the antigen can be  
used for prepn. of high specific antibodies or hybridoman for use in  
the detection

Abstract (Equivalent): US 4722891 A

Recombinant E. coli cell that expresses a 19K, 24K or 66/68K  
Legionella pneumophila -specific antigen is new. It is prepd. by (a)  
transforming E. coli cells with Legionella pneumophila DNA; (b)  
screening clonal colonies of the transformed cells to identify those  
cells which express a 19K, 24K or 66/68K Legionella pneumophila  
antigen; and (c) culturing the identified cells.

USE - A rest sample can be contacted with the recombinant cells and  
antigen/antibody immunocomplex formation can then be detected by means  
of a label to indicate presence of anti-Legionella pneumophila

antibodies in the sample. Used for Legionnaire's disease diagnosis.  
(9pp)

Derwent Class: B04; D16; S03

International Patent Class (Additional): A61K-039/00; C07G-017/00;  
C12N-001/20; C12N-015/00; G01N-033/53

15/7/17

DIALOG(R) File 351:DERWENT WPI

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004093652

WPI Acc No: 1984-239193/198439

Anti- legionella mouse hybrid cells for legionnaires disease - by fusion  
of immunised mice splenocytes with mice myeloma non-secreting cells and  
antibodies for vaccines, diagnosis etc

Patent Assignee: CENT NAT RECH SCIEN (CNRS ); INST PASTEUR (INSP )

Inventor: GUILLET J G; HOEBEKE J; STROSBERG A D; TRAM C

Number of Countries: 015 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2541304	A	19840824	FR 832789	A	19830221	198439 B
EP 119893	A	19840926	EP 84400348	A	19840220	198439
JP 59192092	A	19841031	JP 8429662	A	19840221	198450
CA 1217439	A	19870203				198711
IL 70993	A	19880531				198832
US 4780407	A	19881025	US 8773864	A	19870701	198845
EP 119893	B	19891018				198942
DE 3480173	G	19891123				198948

Priority Applications (No Type Date): FR 832789 A 19830221

Cited Patents: 4-Jnl.Ref

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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FR 2541304	A		25		
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EP 119893	A	F			
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Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

EP 119893	B	F			
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Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

Abstract (Basic): FR 2541304 A

Process comprises fusion of splenocytes of mice immunised against  
bacteria of the Legionella with mice myeloma non-secreting cells.

Pref. the process comprises (a) immunisation of mice with dead  
Legionella bacteria; (b) removal of the spleens of immunised mice and  
separation of the splenocytes; (c) fusion of the obtd. splenocytes with  
mice myeloma cells in the presence of a fusion promoter; (d) culture of  
the obtd. hybrid cells in a selective medium in which the non-fused  
myeloma cells do not develop and which contains appropriate nutrients  
and (e) selection of cells producing the desired antibodies and cloning  
of these cells.

The hybrid cells and anti-Legionella monoclonal antibodies  
produced by the process are also claimed.

USE - Rapid diagnoses of pneumonia caused by Legionella  
pneumophila bacteria (Legionnaires disease), epidemiological detection  
of the disease and the preparation of vaccines against it. The  
antibodies are particularly useful for detecting the bacteria,

qualitatively or quantitatively in air (e.g. hospitals), water supplies etc. and for isolating and typing new strains.

For these diagnoses the antibodies are usually coupled with immuno-absorbants and immunofluorescence (direct or indirect) or immuno-enzymatic (e.g. ELISA ) techniques are used. Diagnostic kits using the antibodies are claimed.

Abstract (Equivalent): EP 119893 B

Mouse anti-Legionella pneumophila sero-group I hybrid cell lines, deposited with the Collection Nationale de Cultures de Micro-organismes (National Collection of Microorganism Cultures) of the Institut PASTEUR, PARIS (France), under nos. 1-219 and 1-220 on 14th February 1983.

Abstract (Equivalent): US 4780407 A

Muine hybrid cell line producing antibodies to Legionella pneumophila of sero, gp. I CNCM I-219 or I-220 and the corresp. monoclonal antibodies are new. Legionella pneumophila bacteria in biological fluids or in the environment are qualitatively or quantitatively determined by (1) attaching filters which can retain the bacteria to air or water inlets; (2) removing the filters and contacting them with a soln. of the antibody; (3) washing the filter; and (4) determining the bacteria by immunoenzymatic method of immunofluorescence.

USE/ADVANTAGE - In diagnostics and environment monitoring. The antibodies have high titre and specificity.

(11pp

Derwent Class: B04; D16; S03

International Patent Class (Additional): A61K-039/02; C07G-007/00;

C07K-015/06; C12N-005/00; C12N-015/00; C12P-021/00; C12Q-001/04;

G01N-033/54

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